

1 461 83

Page 1

N900040100

Setup Start *NS1*

Stop *NS2*

Start Date: 5/11/2016 **Start Qty:** 4.00 ***4***

Cust Item ID:

Required Date: 5/13/2016 Req'd Qty: 4.00 *4*

Customer:

Reference:

Run Start *NR1*

Approvals: Process Plan: Em Date: 16/05/10 Tooling: _____ Date: _____

Stop *NR2*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D4711	D

110	Pick Kit	0.00							JUL 13 2016
110				DAS	(4)				
Packaging	Memo	0.00		30					
Packaging				9-89					

120	0.00	DAS		JUL 13 2016
120		30		
Small Fab		9-89		

	0.84	
Memo		
Small Fab		

ASSEMBLE AS PER DWG (see note 8,9,10)

DO NOT OVERTIGHTEN THE SHAFT INTO THE BARREL PER NOTE 10

130	QC5- Inspect part completeness to step on W/O	0.00			
130					
QC	Memo	0.08			
Quality Control					






DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																						
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																						
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																						
Large Fab ☐	Composite ☐	Supplier ☐																							
Date :		Step #:		QTY Effective :			MRB (QS1042) Approval																		
Description Work Order Deviation				Disposition			Completed By																		
Root Cause				FAULT CATEGORY																					
Environment ☐	☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐																			
Design ☐	☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐																			
Doc/Data ☐	☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐																			
Equip/Tooling ☐	☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐																			
Handling/Pre ☐	☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐																			
Material ☐	☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐																			
Internal Transport ☐	☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐																			
Tribal Knowledge ☐	☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐																			
LOA ☐	☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐																			
Substation ☐	☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐																			
Past Expiry Date ☐	☐	Manufacturing Process ☐	OTHER : _____																						
Misidentified ☐	☐	Past Due ☐																							

Work Order ID 146183

Tuesday, May 10, 2016 11:19:56 AM

146183

Page 2

Item ID: D4711-041

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Expandable Pin Assembly, Modified

Start Date: 5/11/2016 Start Qty: 4.00

4

Cust Item ID:

Required Date: 5/13/2016 Req'd Qty: 4.00

4

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursTool ID Tool # Plan Accept Reject Reject Insp.
Code Qty Qty Number Stamp

140

Identify as per dwg & Stock Location: st DeDAS
6
9-89

0.00

140

Packaging

Memo

0.04

Packaging

pc

JUL 13 2016

150

QC21- Final Inspection - Work Order Release

0.00

150

QC

Memo

0.40

Quality Control

DAS
21
9-89DAS
21
9-89

JUL 14 2016

JUL 14 2016

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐							
Date : _____		Step #: _____		QTY Effective : _____			MRB (QS1042) Approval				
Description Work Order Deviation				Disposition				Completed By			
Root Cause				FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐		No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐		Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐		Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	
OTHER : _____											

Picklist Print

Tuesday, May 10, 2016 11:20:02 AM

Page 1

Work Order ID: 146183

146183

Parent Item: D4711-041

D4711-041

Parent Item Name: Expandable Pin Assembly, Modified

Start Date: 5/11/2016

Required Date: 5/13/2016

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP REV:A 12.10.16 AS PER DWG REV.A DD VERF:JFS IPP REV:B
13.03.11 AS PER DWG REV.C DD VERF:JFS

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4711-043		Manufactured	No			110	Each	23.0000	1	4	DAS 30 9-89		JUL 13 2016
D4711-043									**				
Expandable Pin Assembly													
				<u>Location</u>				<u>Loc Qty</u>	<u>Loc Code</u>				
				ST120				23					
				140520				23		4			
D4726-1		Manufactured	No			110	Each	8.0000	1	4	DAS 30 9-89		JUL 13 2016
D4726-1									**				
Handle													
				<u>Location</u>				<u>Loc Qty</u>	<u>Loc Code</u>				
				ST121				8					
				138435				8	B 146 966	4			
D4727-041		Manufactured	No			110	Each	4.0000	1	4	DAS 30 9-89		JUL 13 2016
D4727-041									**				
Barrel													
				<u>Location</u>				<u>Loc Qty</u>	<u>Loc Code</u>				
				GA				4	B 146 966	4			
				140210				4	B 144 776	4			
D4749-1		Manufactured	No			110	Each	17.0000	1	4	DAS 30 9-89		JUL 13 2016
D4749-1									**				
Spacer													
				<u>Location</u>				<u>Loc Qty</u>	<u>Loc Code</u>				
				ST123				17		4			
				140088				17					

DQA: _____ Date: _____



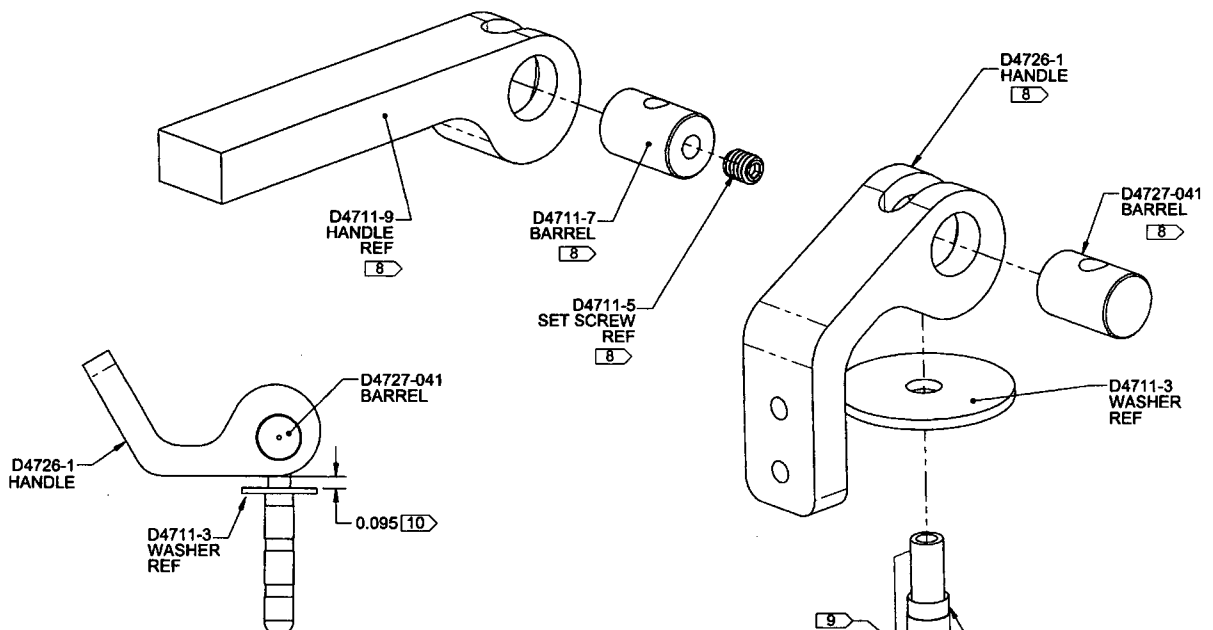
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By		
							Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
OTHER : ☐									

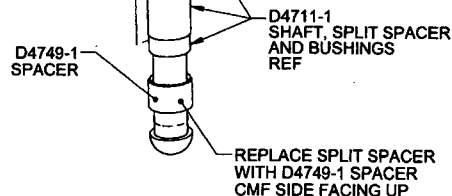
ITEM	QTY -041	P/N	DESCRIPTION
	X	D4711-041	EXPANDABLE PIN ASSY, MODIFIED
1	1	D4711-043	EXPANDABLE PIN ASSY
2	1	D4726-1	HANDLE
3	1	D4727-041	BARREL
4	1	D4749-1	SPACER



**D4711-041
EXPANDABLE PIN ASSEMBLY, MODIFIED
(OPEN POSITION)**

NOTES:

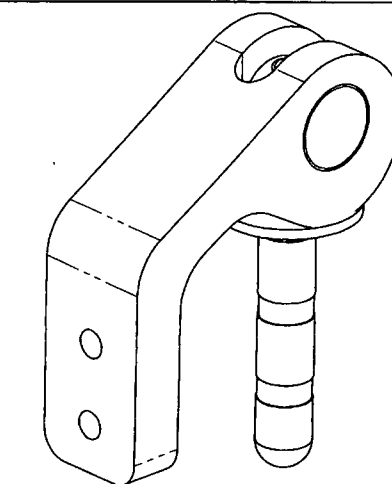
- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY PER DART QSI 044 6.7
- 7) WEIGHT: 0.22 lbs
- 8) REPLACE D4711-9 HANDLE WITH DART D4726-1 HANDLE.
REPLACE D4711-7 BARREL WITH DART D4727-041 BARREL.
REPLACE BOTTOM SPLIT SPACER WITH D4749-1 SPACER.
DISCARD D4711-5 SET SCREW, D4711-7 BARREL, D4711-9 HANDLE, BOTTOM SPLIT SPACER.
- 9) WHEN INSTALLING D4749-1 SPACER, ENSURE THAT ALL RETAINED SPLIT SPACERS AND BUSHINGS REMAIN IN THEIR ORIGINAL SEQUENCE AND ORIENTATION.
- 10) INSTALL THE D4711-1 SHAFT WITH THE ASSEMBLY IN THE OPEN POSITION, UNTIL A GAP OF 0.095" EXISTS BETWEEN THE D4711-3 WASHER AND THE D4726-1 HANDLE. DO NOT OVERTIGHTEN THE SHAFT INTO THE D4727-041 BARREL.



RELEASED
2016-01-05
ELN 15-614

APPROVED

D	GENERAL UPDATE MCMASTER CARR PART NO LONGER AVAILABLE SEE PREVIOUS REVISION AND PARTS 439 FOR DETAILS. SPLIT RINGS, CORE PIN & BARREL NOW 17-4PH H900 CONDITION.	AJS	15.07.22
C	REVISED NOTE (A4-1) & NOTE 8. ADDED NOTE 10. PICTORIAL UPDATE. ADDED VIEW B5-1.	AP	13.02.12
B	ADDED D4749-1 SPACER, MODIFIED NOTES 8 AND 9	AP	12.11.23
A	NEW ISSUE	RP	12.09.19
REV.	DESCRIPTION	BY	DATE
DESIGN	RP	DART AEROSPACE USA, INC.	
DRAWN	AJS	KENT, WA	
CHECKED	CP	DRAWING NO.	REV. D
MFG. APPR.	JLM	D4711	SHEET 1 OF 2
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	ADJUSTABLE DIAMETER PIN	NTS
DATE	15.07.22	COPYRIGHT © 2012 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS UNCLASSIFIED AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

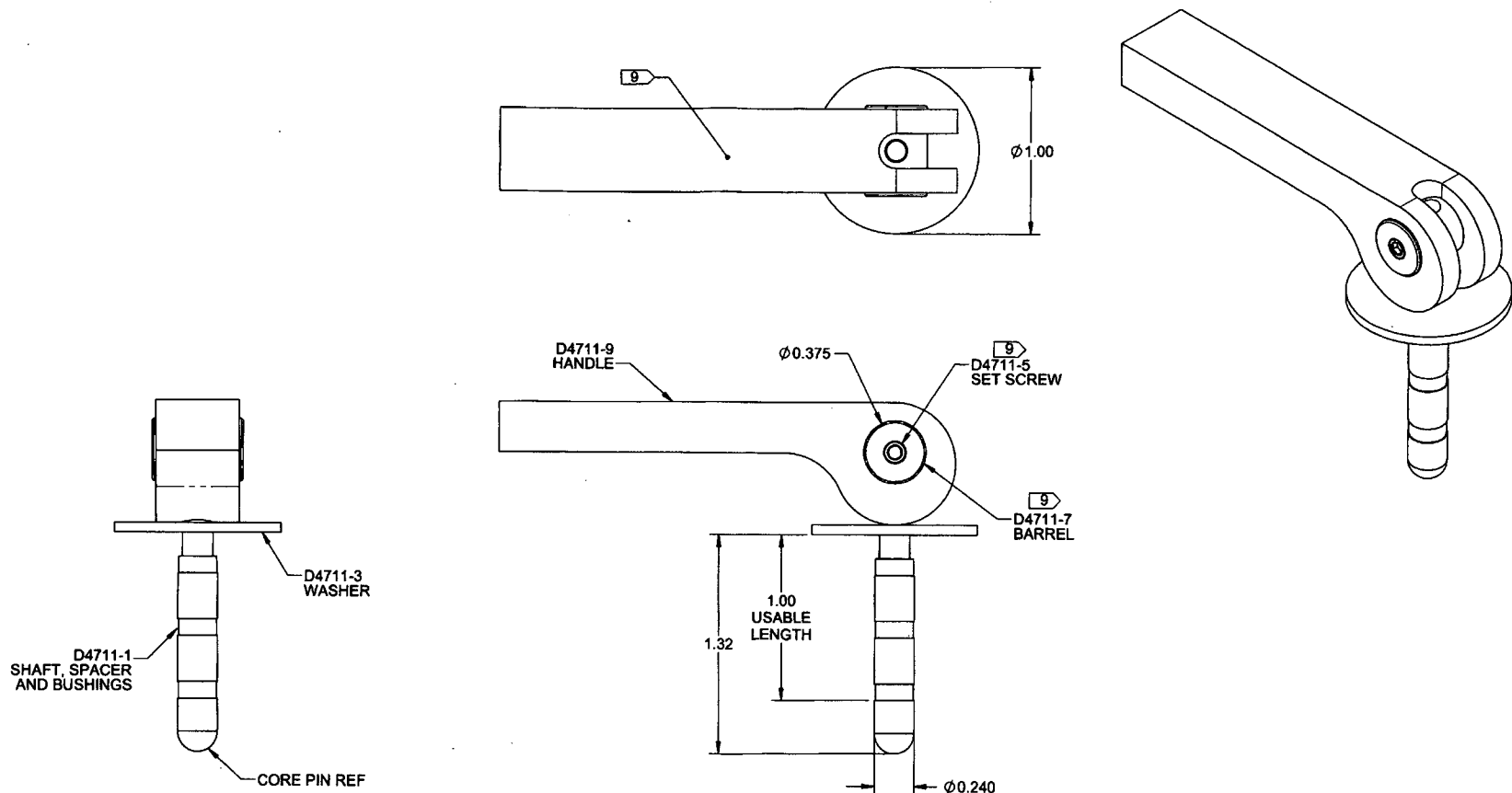


**D4711-041
EXPANDABLE PIN ASSEMBLY, MODIFIED
(CLOSED POSITION)**

w/o 146183

dm 16/05/10

SPECIFICATION CONTROL DRAWING



D4711-043 EXPANDABLE PIN ASSY

NOTES:

- 1) MATERIAL: CORE PIN, SPLIT RINGS AND BARREL: STAINLESS STEEL 17-4 PH CONDITION H900 PER AMS 5643 $\triangle$
- 2) FINISH: N/A
- 3) TOLERANCES: N/A
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.17 lbs
- 8) SUPPLIER: QRP INC, 2307 MERCANTILE DR. N.E., LELAND, NORTH CAROLINA, 28451. P/N: 09094-QADPC416 $\triangle$
- 9) HANDLE, BARREL AND SET SCREW TO BE DISCARDED AT NEXT HIGHER ASSEMBLY

RELEASED
2016-01-05

APPROVED

DESIGN	RP	DART AEROSPACE USA, INC.	
DRAWN	AJS	KENT, WA	
CHECKED	CP	DRAWING NO.	REV. D
MFG. APPR.	JLM	D4711	SHEET 2 OF 2
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	ADJUSTABLE DIAMETER PIN	NTS
DATE	15.07.22	COPYRIGHT © 2012 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	